

	Everyday Mathematics Learning Goals (2002) (Related to Math Fact Fluency)	NCTM Focal Points (2006)
① First Grade	<ul style="list-style-type: none"> ✓ Find complements of 10 (D-2) ✓ Know +1, and +0, doubles and sums of 10 addition facts (D-5;D/S-8) ✓ Learn simple addition facts (B/D-6) ✓ Know addition facts (D-7) 	<p>Number and Operations and Algebra: Developing understandings of addition and subtraction and strategies for basic addition facts and related subtraction facts.</p> <p>Number and Operations: Developing an understanding of whole number relationships, including grouping in tens and ones.</p> <p>Geometry: Composing and decomposing geometric shapes.</p>
② Second Grade	<ul style="list-style-type: none"> ✓ Know "easier" addition facts (D-1; S-2) ✓ Construct fact families for addition and subtraction (S-2) ✓ Know "harder" addition facts (D/S-2) ✓ Know "easier" subtraction facts (D/S-2) ✓ Know "harder" subtraction facts (D-2) ✓ Know more difficult subtraction facts (D-2) ✓ Know all addition facts (S-3) ✓ Know easy subtraction facts (S-3) ✓ Multiply numbers with 0 or 1 as a factor (S-11) ✓ Construct multiplication/division fact families (D-11;D/S-12) ✓ Multiply numbers with 2, 5, and 10 as a factor (D-11;D/S-12) ✓ Know "harder" multiplication facts (B-12) 	<p>Number and Operations: Developing an understanding of the base-ten numeration system and place-value concepts.</p> <p>Number and Operations and Algebra: Developing quick recall of addition facts and related subtraction facts and fluency with multi-digit addition and subtraction.</p> <p>Measurement: Developing an understanding of linear measurement and facility in measuring lengths.</p>
③ Third Grade	<ul style="list-style-type: none"> ✓ Know basic addition facts (S-1) ✓ Know basic addition and subtraction facts (S-2) ✓ Use basic facts to solve fact extensions (D/S-2) ✓ Complete fact and number families (S-2) ✓ Know multiplication facts having 0 or 1 as a factor (S-4) ✓ Know multiplication facts having 2, 5, or 10 as a factor (D/S-4) ✓ Complete multiplication/division fact families (D/S-4) ✓ Know multiplication facts having 3 or 4 as one factor and 2 through 7 as the other factor (D-4) ✓ Know multiplication facts from the first set of Fact Triangles (D/S-5;S-6) ✓ Recognize and know square products (D-7) ✓ Know multiplication facts from the second set of Fact Triangles (D-7) ✓ Solve extended multiplication facts to tens x tens (D-7) ✓ Solve extended multiplication facts to hundreds x hundreds (D-9) ✓ Find factors of a number (B/D-9) ✓ Know multiplication facts (D-10) 	<p>Number and Operations and Algebra: Developing understandings of multiplication and division and strategies for basic multiplication facts and related division facts.</p> <p>Number and Operations: Developing an understanding of fractions and fraction equivalence.</p> <p>Geometry: Describing and analyzing properties of two-dimensional shapes.</p>

<p>④</p> <p>Fourth Grade</p>	<ul style="list-style-type: none"> ✓ Solve addition and subtraction facts (S–1) ✓ Have a successful strategy for subtracting multi-digit numbers (S–2) ✓ Have a successful strategy for adding multi-digit numbers (S–2) ✓ Solve basic multiplication facts (S–3) ✓ Understand the relationship between multiplication and division (S–3) ✓ Solve basic division facts (D–3) ✓ Solve 1- and 2-place decimal addition and subtraction problems and number stories (D–4) ✓ Solve multi-digit multiplication problems (D–5) ✓ Solve extended multiplication facts (D–5) ✓ Use and explain strategies for solving multiplication and division number stories (D–6) ✓ Add and subtract fractions (B–7) ✓ Add integers (B–10) ✓ Subtract positive and negative integers (B–11) ✓ Add positive and negative integers (D–11) 	<p>Number and Operations and Algebra: Developing quick recall of multiplication facts and related division facts and fluency with whole number multiplication.</p> <p>Number and Operations: Developing an understanding of decimals, including the connections between fractions and decimals.</p> <p>Measurement: Developing an understanding of area and determining the areas of two-dimensional shapes.</p>
<p>⑤</p> <p>Fifth Grade</p>	<ul style="list-style-type: none"> ✓ Know basic multiplication facts (S–1) ✓ List the factors of a number (S–1) ✓ Find the prime factorizations of numbers (B–1;S–12) ✓ Divide decimal numbers by whole numbers with no remainders (B–4) ✓ Find the quotient and remainder of a whole number divided by a 1-digit whole number (D–4) ✓ Find the quotient and remainder of a whole number divided by a 2-digit whole number (D–4) ✓ Add fractions with like denominators (B/D–5) ✓ Find equivalent fractions (D/S–5) ✓ Add and subtract fractions with common denominators (D–6) ✓ Add and subtract fractions with unlike denominators (D–6) ✓ Find a common denominator (D–6) ✓ Add and subtract positive and negative numbers (D–7) ✓ Use an algorithm to add mixed numbers (D/S–8) ✓ Find the greatest common factor of two numbers (D–12) ✓ Find and identify factors of numbers (S–12) 	<p>Number and Operations and Algebra: Developing an understanding of and fluency with division of whole numbers.</p> <p>Number and Operations: Developing an understanding of and fluency with addition and subtraction of fractions and decimals.</p> <p>Geometry and Measurement and Algebra: Describing three-dimensional shapes and analyzing their properties, including volume and surface area.</p>
<p>⑥</p> <p>Sixth Grade</p>	<ul style="list-style-type: none"> ✓ Add and subtract decimals (S–2) ✓ Divide two whole numbers; give the answer to a specified number of decimal places (D–2) ✓ Multiply by positive and negative powers of 10 (D–2) ✓ Mentally add 1-digit positive and negative numbers (S–3) ✓ Find the least common multiple of two numbers (S–3) ✓ Find the greatest common factor of two numbers (S–3) ✓ Add mixed numbers having fractions with like denominators (S–4) ✓ Add and subtract fractions with like and unlike denominators (S–4) ✓ Write fractions and mixed numbers in simplest form (S–4) ✓ Understand and apply the identity property for multiplication (S–6) ✓ Understand and apply the commutative property for addition and multiplication (S–6) ✓ Understand and apply the associative property for addition and multiplication (S–1) ✓ Add, subtract, multiply, and divide positive and negative numbers (D/S–6) 	<p>Number and Operations: Developing an understanding of and fluency with multiplication and division of fractions and decimals.</p> <p>Number and Operations: Connecting ratio and rate to multiplication and division.</p> <p>Algebra: Writing, interpreting, and using mathematical expressions and equations</p>